Match-Up

Laws of Indices

Find the missing power n in each of the statements.

1	$5^2 \times 5^n = 5^8$	**7**	$\dfrac{(7^3)^n}{7^2} = 7^{10}$	**13**	$(-2)^{1.5} = \dfrac{(-2)^2}{(-2)^n}$
2	$8^n \div 8^3 = 8^4$	**8**	$\dfrac{5^5 \times 5^n}{5^{12}} = 5$	**14**	$(7^{-2})^n = 7$
3	$10^n \times 10 = 10^3$	**9**	$6^3 \times (6^2)^n = 6^{21}$	**15**	$\dfrac{3^n \times 3}{3^{-3}} = 3^{-5}$
4	$\dfrac{9^6}{9^n} = 9$	**10**	$\dfrac{3^8}{3^n} = 3^{10}$	**16**	$\left(6^{1/2}\right)^n = \dfrac{6}{6^3}$
5	$(2^6)^n = 2^{18}$	**11**	$9^{1.5} \times 9^n = 9^4$	**17**	$\dfrac{4^{2n}}{4^{-3}} = 4^n$
6	$4^2 \times 4^n \times 4^3 = 4^{15}$	**12**	$2^{-4} = \left(2^{1/2}\right)^n$	**18**	$5^n \times 5^{n-1} = (5^3)^n$

A	$n = 8$	**G**	$n = 9$	**M**	$n = 10$
B	$n = 2$	**H**	$n = -4$	**N**	$n = -2$
C	$n = -0.5$	**I**	$n = 6$	**O**	$n = 0.5$
D	$n = -3$	**J**	$n = 3$	**P**	$n = -1$
E	$n = 5$	**K**	$n = -8$	**Q**	$n = 7$
F	$n = 2.5$	**L**	$n = -9$	**R**	$n = 4$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
I	Q	B	E	J	M	R	A	G	N	F	K	O	C	L	H	D	P